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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,928	10/28/2003	Pablo R. Rodriguez	304931.01	7025

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MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052-6399

EXAMINER	
SURVILLO, OLEG	
ART UNIT	PAPER NUMBER
2442	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

roks@microsoft.com
ntovar@microsoft.com

Office Action Summary	Application No.	Applicant(s)	
	10/695,928	RODRIGUEZ, PABLO R.	
	Examiner	Art Unit	
	OLEG SURVILLO	2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-24,26-33 and 35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-24,26-33 and 35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission dated March 18, 2009 has been entered.

Response to Amendment

2. Claims 10-24, 26-33, and 35 remain pending in the application. Claims 10, 11, 16-20, and 23 are currently amended. Claims 1-9, 25 and 34 are canceled. No new claims are currently added.

Response to Arguments

3. With regard to applicant's remarks dated March 18, 2009:

regarding the rejection of claim 10 under 35 U.S.C. 103(a), applicants argue at page 12 of remarks that *"the Examiner's replacement of the claim words "each object in the virtual resource" with the words "block of data (packet in Chebrolu)" seems to indicate that the Examiner considers Chebrolu's "packet" to be equivalent to Applicants' "object""*. This issue was fully addressed in the series of previous Office actions and Advisory action, and therefore is not further reiterated here as being redundant.

Examiner previously indicated that Chebrolu does not expressly recite the claimed limitation of "a virtual resource comprising a plurality of objects". Thus, Chebrolu's packets were not equated (in the previous Office actions) with claimed "objects". See OA mailed 12/18/08 at page 5. In response to applicants' argument that *"Chebrolu defines "packets" as data packets such as those commonly sent over networks..."* and submission that: *"…Chebrolu's "packets" are not the same as Applicants' "objects in a virtual resource"."* (see remarks dated September 10, 2008) examiner pointed out that applicants failed to provide a specific definition of "objects in a virtual resource" that would provide an evidence of a structural and functional difference over Chebrolu's "packet". See OA dated 10/28/08 at page 3. Since applicants maintain their argument in the current response without further defining the broad limitation of "object in a virtual resource" in the claim, examiner reconsiders his interpretation of Chebrolu and equates packets of Chebrolu with objects of the claim, in order to emphasize on a lack of specificity that would patentably distinguish claimed objects from packets in the applied reference.

Applicants argue at page 13 of remarks that *"the term "request" does not occur anywhere in Chebrolu, and therefore Chebrolu makes no suggestion of a "request for each object in the virtual resource""*. This argument is not persuasive. A mere absence of an explicit recitation of the word "request" in Chebrolu does not inherently mean that Chebrolu fails to suggest "requesting each object in the virtual resource". Applicants made no argument whether scheduling each packet on a link, as taught by Chebrolu in

section III. Scheduling Algorithm is patentably distinct from claimed requesting each object in the virtual resource.

Applicants further argue at page 13 of remarks that *"Rodriguez teaches away from Applicants' claimed invention"*. Examiner disagrees. In one of the embodiments Rodriguez discusses retrieving a file from multiple mirror servers. However, in other embodiments, Rodriguez discusses retrieving a file from a single server. See section V. Dynamic Parallel Access versus Parallel Access to a single Server. One would not be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant in view of Rodriguez's discussion of both embodiments, that is, utilizing a single server and multiple mirror servers, to retrieve the requested document.

Applicants argue at pages 15 and 16 of remarks portions of Greer that were not relied on in the rejection. Applicants further argue that *"Greer cannot be considered to teach "transmitting an outgoing request for each object in the virtual resource""*. However, Greer was not relied on to teach this limitation. Thus, applicants' argument is moot. Whether or not Greer can potentially be relied on to teach "transmitting an outgoing request for each object in the virtual resource" examiner has no comment.

Applicants further argue at page 16 of remarks that *"Viswanath makes no mention of receiving the request "at the wireless network access device.""*. This argument is not persuasive because mobile node requests access to data services by generating a request (par. [0011]). The mobile node is in communication with a serving node (18) (Fig. 1). The method of Fig. 3 begins at step (200) when load balance unit

(22) receives network access request (28) from serving node (18) (par. [0039]), which suggests that the request generated by the mobile node is received by the serving node (18) before the method of Fig. 3 begins. Thus, Viswanath is considered to teach "receiving at the wireless network access device, from a computing device, an incoming request...." as claimed.

Applicants argue at page 17 of remarks that *"Viswanath teaches a gateway GPRS support node (20) that is distinct from any device that may be considered the same as Applicants' claimed "wireless network access device"."*. This argument is not persuasive. Claimed "wireless network access device" is mapped to Viswanath's operator network (14) that uses a serving node (18) to link Radio Access Network (24) with multiple gateways (20) providing access to data networks (16)] (par. [0010], Fig. 1). Thus, Viswanath is considered to teach "determining a number of available wireless network interfaces of the wireless network access device, …." as claimed.

Applicants argue at page 18 of remarks that *"Viswanath does not in any way teach the "gateways" or the "load balancing units" to be "wireless devices", even in the face of specifically so teaching about RAN 24."* This argument is not persuasive because gateways (20) are GPRS serving nodes and support GPRS protocols (par. [0017]). Thus, Viswanath is considered to teach "transmitting from the wireless network access device an outgoing request…" as claimed.

Applicants argue at page 19 of remarks that *"Viswanath's "IP address" included in the request is patentably different than Applicants' claimed "wireless network interface" that is "of the wireless network access device" specified in Applicants'*

outgoing request". This argument is not persuasive since applicants failed to established patentable difference between “each outgoing request specifying the available wireless network interface” and “each outgoing request including the IP address of selected gateway”. In particular, the limitation of "specifying the available wireless network interface" is broadly but reasonably interpreted as "including the IP address of the selected gateway". Applicants are advised to further specify as to what constitutes "specifying the available wireless network interface" such that it would distinguish from teachings of Viswanath.

As to any arguments not specifically addressed, they are the same as those discussed above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 10, 12-14, 16-23, and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Viswanath et al. (US 2007/0118670 A1) in view of an article “Communication using Multiple Wireless Interfaces” by Kameswari Chebrolu et al. (hereinafter *Chebrolu*) in view of an article “Dynamic Parallel Access to Replicated Content in the Internet” by Pablo Rodriguez et al. (hereinafter *Rodriguez*) and in further view of Greer et al. (US Patent No.: 5,978,828).

As to claim 10, the preamble has been given patentable weight since the claim body refers back to the preamble. See “the virtual resource” at line 2 of the body.

As to claim 10, Viswanath shows a method performed by a wireless network access device [operator network (14) that uses a serving node (18) to link Radio Access Network (24) with multiple gateways (20) providing access to data networks (16)] (par. [0010], Fig. 1), comprising:

receiving at the wireless network access device, from a computing device [mobile node (12)], an incoming request [mobile node requests access to data services by generating a request (par. [0011]). The mobile node is in communication with a serving node (18) (Fig. 1). The method of Fig. 3 begins at step (200) when load balance unit (22) receives network access request (28) from serving node (18) (par. [0039]), which suggests that the request generated by the mobile node is received by the serving node (18) before the method of Fig. 3 begins];

determining a number of available wireless network interfaces of the wireless network access device [determining a number of available gateway GPRS support nodes (20) that provide an access to a particular network among the plurality of networks] (par. [0012], [0021]), each of the available wireless network interfaces communicatively coupled to a distinct network of a plurality of networks [each gateway GPRS support node (20) is communicatively coupled to a distinct network (16)] (Fig. 1, par. [0021]); and

transmitting from the wireless network access device an outgoing request, wherein each outgoing request specifies the available wireless network interface [load

balancing requests among gateways (20), wherein each outgoing request includes the IP address of selected gateway] (par. [0016] and [0041]).

Viswanath does not explicitly show that the method is for retrieving a virtual resource from a remote computer via the plurality of wireless network interfaces. In particular, Viswanath does not explicitly show that the incoming request is for a virtual resource, wherein the virtual resource comprises a plurality of objects; that the plurality of wireless networks communicatively couple the wireless network access device to the remote computer; determining a number of objects in the virtual resource; assigning by the wireless network access device each object in the virtual resource to at least one of the available wireless network interfaces, at least one object in the virtual resource being assigned to a different available wireless network interface than another object in the virtual resource; that the outgoing request is transmitted to the remote computer for each object in the virtual resource, and wherein the objects in the virtual resource are downloaded in a conventional manner, responsive to the outgoing requests, from the remote computer to the wireless network access device via the corresponding assigned available network interfaces.

Chebrolu shows a method performed by a wireless network access device [mobile terminal] (Fig. 1) for retrieving a virtual resource from a remote computer via a plurality of wireless network interfaces [retrieving data from a remote host in form of a traffic communicated across multiple wireless interfaces] (Fig. 1; throughout the reference), comprising:

requesting the virtual resource [mobile terminal using multiple interfaces simultaneously to receive packets from remote host] (Fig. 1; section II. Architectural details, par. 1), wherein the virtual resource comprises a plurality of objects [data retrieved from the remote host comprises a plurality of packets] (section II. Architectural details and section IV. Scheduling Algorithm);

determining a number of available wireless network interfaces of the wireless network access device, each of the available wireless network interfaces communicatively coupled to a distinct wireless network of a plurality of wireless networks that communicatively couple the wireless network access device to the remote computer (Fig. 1; section I. Introduction and section II. Architectural Details);

assigning by the wireless network access device each object in the virtual resource [each packet in the traffic between mobile terminal and remote host] to at least one of the available wireless network interfaces (section II. Architectural Details, par. 2 lines 3-5; section IV. Scheduling Algorithm), at least one object in the virtual resource being assigned to a different available wireless network interface than another object in the virtual resource (section VI. Simulation Results); and

transmitting from the wireless network access device an outgoing request to the remote computer for each object in the virtual resource, wherein each outgoing request specifies the available wireless network interface assigned to the corresponding object in the virtual resource (section IV. Scheduling Algorithm), and wherein the objects in the virtual resource are downloaded in a conventional manner, responsive to the outgoing requests, from the remote computer to the wireless network access device via the

corresponding assigned available wireless network interfaces (section I. Introduction and section II. Architectural Details).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Viswanath by requesting the virtual resource, wherein the virtual resource comprises a plurality of objects; determining a number of available wireless network interfaces of the wireless network access device, each of the available wireless network interfaces communicatively coupled to a distinct wireless network of a plurality of wireless networks that communicatively couple the wireless network access device to the remote computer; assigning by the wireless network access device each object in the virtual resource to at least one of the available wireless network interfaces, at least one object in the virtual resource being assigned to a different available wireless network interface than another object in the virtual resource; and transmitting from the wireless network access device an outgoing request to the remote computer for each object in the virtual resource, wherein each outgoing request specifies the available wireless network interface assigned to the corresponding object in the virtual resource, and wherein the objects in the virtual resource are downloaded in a conventional manner, responsive to the outgoing requests, from the remote computer to the wireless network access device via the corresponding assigned available wireless network interfaces, as taught by Chebrolu, wherein the functionality disclosed by Chebrolu would be implemented in the operator network (14) of Viswanath, in order to aggregate the bandwidth offered by the individual networks (abstract of Chebrolu), such as networks (16) in Viswanath.

Viswanath in view of Chebrolu does not expressly show determining a number of objects in the virtual resource.

Rodriguez shows a method for retrieving a virtual resource [document] from a remote computer [server] via a plurality of network interfaces [multiple TCP connections in parallel] (throughout the reference), comprising:

receiving from a computing device [client], an incoming request for the virtual resource [client requests document from a server] (section III. Dynamic Parallel Access, par. 1; section V. Dynamic Parallel Access Versus Parallel Access to a Single Server), wherein the virtual resource comprises a plurality of objects (pages 457 col. 2 and 458 col. 1 under the section III. Dynamic Parallel Access);

determining a number of objects [blocks] in the virtual resource (pages 457 col. 2 and 458 col. 1 under the section III. Dynamic Parallel Access); and

assigning each object in the virtual resource to at least one of the available network interfaces [TCP parallel connections], at least one object in the virtual resource being assigned to a different available network interface [TCP parallel connection] than another object in the virtual resource (page 455 col. 2 under the section I. Introduction).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Viswanath in view of Chebrolu with those of Rodriguez, as discussed just above, in order to retrieve different portions of the requested resource using multiple TCP connections in parallel and reassemble retrieved portions locally (abstract of Rodriguez, section V. Dynamic Parallel Access versus Parallel Access to a single Server).

In combination with express teachings of Rodriguez, Greer shows that the virtual resource [such as a web page] comprises a plurality of objects (Fig. 3 and 4). Greer also shows determining a number of objects in the virtual resource [sending a request to a server for information about a web page (col. 8 lines 30-35), wherein the response message from the server includes the number of objects in the virtual resource and the size of each object] (Figure 6; col. 4 lines 18-20).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Viswanath in view of Chebrolu and Rodriguez with those of Greer, as discussed just above, in order to efficiently partition the virtual resource from a single document and schedule portions of the resource onto multiple links (page 328 section IV. Scheduling Algorithm in Chebrolu).

As to claim 12, Viswanath shows that determining a number of available wireless network interfaces comprises monitoring one or more characteristics of a wireless network interface [monitoring the existence of gateways by formulating a list (32) of gateways] (par. [0021]).

As to claim 13, Viswanath in view of Chebrolu, Rodriguez and Greer shows that determining a number of available wireless network interfaces comprises monitoring one or more characteristics of a wireless network interface, wherein a signal characteristic is selected from the group of signal characteristics consisting of: signal-to-

noise ratio, available bandwidth, congestion, signal strength, connection cost, and bit error rate (Chebrolu, page 328 under section III. Interface Selector Algorithm).

As to claim 14, Viswanath shows that determining a number of available wireless network interfaces comprises monitoring one or more characteristics of a wireless interface stored in a data table in memory [formulating a list of gateways that link to the identified APN] (par. [0021]).

As to claim 16, Viswanath in view of Chebrolu, Rodriguez, and Greer shows that the determining a number of objects in the virtual resource comprises querying the remote computer (Fig. 10; col. 8 lines 30-35 in Greer).

As to claims 17 and 30, Viswanath in view of Chebrolu, Rodriguez, and Greer shows that the assigning comprises assigning an object to two or more of the available network interfaces if the size of the object exceeds a threshold (page 455 col. 2 lines 5-7, 17-20, 29-30; page 456 col. 1 lines 15-23; section III. Dynamic Parallel Access - all in Rodriguez).

As to claims 18 and 31, Viswanath in view of Chebrolu, Rodriguez, and Greer shows that the assigning comprises assigning an object to two or more available network interfaces if the size of the object exceeds a threshold, wherein the threshold is a function of the bandwidth of available wireless network interfaces (page 455 col. 2

lines 5-7, 17-20, 29-30; page 456 col. 1 lines 15-23; section III. Dynamic Parallel Access - all in Rodriguez; page 328 section III. Interface Selector Algorithm in Chebrolu).

As to claims 19 and 32, Viswanath in view of Chebrolu, Rodriguez, and Greer shows that the assigning comprises assigning an object to two or more available network interfaces if the size of the object exceeds a threshold, wherein the threshold is a function of the size of an object relative to the size of other objects in the virtual resource (page 455 col. 2 lines 5-7, 17-20, 29-30; page 456 col. 1 lines 15-23 section III. Dynamic Parallel Access - all in Rodriguez; page 328 section III. Interface Selector Algorithm in Chebrolu).

As to claim 20, Viswanath in view of Chebrolu, Rodriguez, and Greer shows:

receiving the each object in the virtual resource over the corresponding assigned available wireless network interfaces (page 329 section VI. Simulation Results in Chebrolu); and

collating the received objects to construct the virtual resource (page 455 col. 2 lines 7-9 in Rodriguez).

As to claim 21, Viswanath in view of Chebrolu, Rodriguez, and Greer shows transmitting the virtual resource to the computing device that originated the incoming request (page 455 col. 2 lines 5-10 in Rodriguez).

As to claim 22, Viswanath in view of Chebrolu, Rodriguez, and Greer shows a computer-readable medium having computer-executable instructions that is capable of performing the method recited in claim 10 (claims 42-49 in Viswanath).

As to claim 23, Viswanath in view of Chebrolu, Rodriguez, and Greer shows:

at least one local communication network interface [serving GPRS Support Node (18)] (Fig. 1 in Viswanath) for receiving a request for a virtual resource, wherein the virtual resource comprises a plurality of objects (as discussed per claim 10);

a plurality of wireless network interfaces [Gateway GPRS support nodes (20)] (Fig. 1 in Viswanath; also Fig. 1 in Chebrolu);

a memory module (104) (Fig. 2 in Viswanath); and

a processor (102) (Fig. 2 in Viswanath) executing logic instructions that cause the apparatus to perform the method steps of claim 10, as discussed above.

As to claim 26, Viswanath shows that the processor polls the wireless network interfaces to determine characteristics of the communication connections managed by the wireless network interfaces [formulating a list (32) of gateways (20) that link to the identified APN] (par. [0021]) [and keeping a record of gateways that recently served requests in round-robin approach] (par. [0033]).

As to claim 27, Viswanath in view of Chebrolu, Rodriguez, and Greer shows that the processor polls the wireless network interfaces on a periodic basis to determine

characteristics of the communication connections managed by the wireless network interfaces (page 455 col. 2 lines 20-23 in Rodriguez; section VI. Simulation Results in Chebrolu).

As to claim 28, Viswanath in view of Chebrolu, Rodriguez, and Greer shows that the processor polls the wireless network interfaces in response to a received request to determine characteristics of the communication connections managed by the wireless network interfaces (page 455 col. 2 lines 30-38 in Rodriguez; section VI. Simulation Results in Chebrolu).

As to claim 29, Viswanath in view of Chebrolu, Rodriguez, and Greer shows that the processor assigns objects to wireless network interfaces according to an algorithm that maximizes bandwidth (page 455 col. 2 lines 42-48 and page 456 col. 1 lines 1-10 in Rodriguez; section III. Interface Selector Algorithm in Chebrolu).

As to claim 33, Viswanath in view of Chebrolu, Rodriguez, and Greer shows that the processor is further configured to receive requested objects transmitted across at least some of the plurality of wireless networks (page 329 section VI. Simulation Results in Chebrolu).

6. Claims 11 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Viswanath et al. in view of Chebrolu et al., Rodriguez et al., Greer et al., and in further view of Boehm (US 2004/0085944 A1).

As to claim 11, Viswanath shows that receiving the incoming request for the virtual resource comprises receiving the incoming request from a computing device over a radio access network (Fig. 1).

Viswanath in view of Chebrolu, Rodriguez, and Greer does not explicitly show that the receiving comprises receiving the incoming request over a local communication network.

Boehm shows that the receiving comprises receiving the incoming request over a local communication network (par. [0020], Fig. 3)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Viswanath in view of Chebrolu, Rodriguez, and Greer by receiving the incoming request from a computing device over a local communication network in order to receive requests from computing devices locally connected to the portable Wireless Internet gateway (Fig. 3, par. [0020] in Boehm).

As to claim 24, Viswanath shows that the at least one local communication network interface comprises a wireless network interface [Serving GPRS Support Node (18)] (Fig. 1) that communicates with mobile devices (12) over a Radio Access Network (24) (Fig. 1).

In addition, Boehm shows that the at least one local communication network interface comprises a wireless network interface [a portable gateway (315)] (Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Viswanath in view of Chebrolu, Rodriguez, and Greer by having the at least one local communication network interface comprise a wireless network interface in order to enable wireless communication with mobile devices.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Viswanath et al. in view of Chebrolu et al., Rodriguez et al., Greer et al., and in further view of Nelson (US 2003/0055975 A1).

As to claim 15, Viswanath shows querying local domain name server (30) for a list of available wireless network interfaces.

Viswanath in view of Chebrolu, Rodriguez, and Greer does not explicitly show that determining a number of available wireless network interfaces comprises querying the wireless interfaces.

Nelson shows that determining a number of available wireless network interfaces comprises querying the wireless interfaces (par. [0083]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Viswanath in view of Chebrolu, Rodriguez, and Greer by having determining a number of available wireless network interfaces comprise

querying the wireless interfaces in order to verify that a selected wireless network interface is currently available to handle the request.

8. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Viswanath et al. in view of Chebrolu et al, Rodriguez et al., Greer et al., and in further view of Holder (US 2003/0208554 A1).

As to claim 35, Viswanath in view of Chebrolu, Rodriguez, and Greer shows the processor being further configured to receive requested objects transmitted across at least some of the plurality of wireless networks (section II. Architectural details in Chebrolu).

Viswanath in view of Chebrolu, Rodriguez, and in further view of Greer does not explicitly show the processor configured to transmit received objects over the local communication network interface.

Holder shows that the processor is configured to transmit received objects over the local communication network interface (par. [0004] and [0025]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Viswanath in view of Chebrolu, Rodriguez, and Greer by having the processor being configured to transmit received virtual resources over the local communication network interface in order to enable the requesting client to receive response to the request.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLEG SURVILLO whose telephone number is (571)272-9691. The examiner can normally be reached on M-Th 8:30am - 6:00pm; F 8:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: Oleg Survillo

Phone: 571-272-9691

/Andrew Caldwell/
Supervisory Patent Examiner, Art Unit 2442